Lower Missouri River Ecosystem

Fiscal Year 1999 Annual Report
Region 3

Volunteers in Lewis and Clark era clothing help celebrate the establishment of the Big Muddy National Fish and Wildlife Refuge near St. Louis Missouri.
- USFWS Photo

Ecosystem Description

It's the "Big Muddy" – the starting point and travel route for Lewis and Clark's historic journey; it's what gives the "Mighty Mississippi" its might; at 2,250 miles, it's the nation's longest river. With origins in the Rocky mountains, the Missouri River rolls through seven states on the way to its confluence with the Mississippi River at St. Louis, Missouri. In pre-settlement times, the Lower Missouri was a diverse mixture of braided channels, chutes, sloughs, islands and sandbars –a mosaic of aquatic and terrestrial habitats supporting an incredible diversity of fish and wildlife species.

Known as the Big Muddy due to its high sediment load, the Missouri River today looks far different than it did to the famous explorers who followed its route westward. The upper river is a series of dams and reservoirs. The 811 miles of the lower river has been channelized to facilitate navigation and leveed to protect productive agricultural lands. As a result, the river is shorter by 127 miles, and important river functions, such as the seasonal flooding that supports backwater and bottomland habitats for fish and wildlife, have been modified.

A half-million acres of river and floodplain habitat have been lost. In essence, the river has been separated from its floodplain. The Lower Missouri's rich diversity of fish and wildlife species has felt the impacts of habitat alteration – species such as bald eagles, least terns, and pallid sturgeon have declined throughout the river system.

Among the most pressing challenges for resource managers on the Lower Missouri are effects of maintaining navigation on the river, and land uses within the floodplain. Dikes and levees that ease movement of barge traffic and protect farmlands and communities also change river flows; non-point source pollution from agricultural and urban runoff alters water chemistry and threatens native fish and wildlife; sedimentation from farms and construction sites covers mussel beds, fills in backwaters and chokes out native vegetation.

Team Leader Mark Wilson says, “The Lower Missouri River is a very complex ecosystem, not only because of the vast potential for restoring wildlife and habitat, but because of the wide diversity of historic and current uses of the river and the floodplain, and the demands upon the system from its users. I believe that is why a basic concept of the ecosystem approach to management —involvement of the partners — is so critical here. We simply must have as many stakeholders at the table as possible, and that starts here in the Service.”

The Lower Missouri River Ecosystem Team

The Lower Missouri River Ecosystem Team consists of Region 3 field stations including the Columbia Ecological Services and Fishery Resources offices, Jefferson City Law Enforcement, the Missouri River Coordinator office, and Big Muddy, Swan Lake, DeSoto, and Squaw Creek national wildlife refuges. The team is relatively small, and so is not divided into subgroups or working groups. Members work regularly with other federal agencies, such as the U.S. Army Corps of Engineers, National Park Service, and U.S. Geological Survey/Biological Resources Division, as well as Missouri’s Departments of Conservation and Natural Resources and various non-governmental partners.

It may seem that overcoming the many obstacles to river restoration is like swimming upstream, but the Lower Missouri River Ecosystem Team has prioritized its goals and is making remarkable progress. The team’s efforts are aided by programs such as the Missouri River Assessment partnership, known as MORAP, consisting of state and federal conservation agencies.

MORAP was established in 1996 to develop and make available high-quality resource information to the partner agencies to help in planning and decision-making to balance development needs with conservation needs. Also in place to assist resource managers is the Missouri River Environmental Assessment Program, which is establishing a system-wide database on Missouri River water quality, habitat, and fish and wildlife. The program provides for long-term monitoring as well as specific investigations. Armed with information provided through MORAP and the environmental assessment program, ecosystem team members have made notable strides toward their goal of restoring habitat diversity on the river.

Natural River Functions

Of primary concern to the team is the restoration and maintenance of the natural function of the river, including periodic flooding, while accommodating the social and economic uses of the river. The team has many public and private partners, with coordination among interests a key part of its efforts.

Fisheries

Assessing the ecosystem's fisheries populations plays a critical role in the team's overall goal of restoring river habitat and function. Paddlefish and the endangered pallid sturgeon are the focus of sampling, tagging, and data analysis efforts, and research was also conducted on several species whose status is in question, including the flathead chub, sicklefin chub, sturgeon chub, plains minnow, and western silver minnow.

Private Lands

Through the Partners for Fish and Wildlife program, stream habitat enhancement work is being carried out on private lands to benefit the endangered Topeka shiner and Niangua darter.

Big Muddy National Fish and Wildlife Refuge

A huge step forward in potential river restoration came with completion of the final Environmental Impact Statement(EIS) for the expansion of Big Muddy National Fish and Wildlife Refuge. Originally intended to encompass just over 16,000 acres in the river floodplain, the refuge was expanded through the EIS process to include up to 60,000 acres in scattered tracts from Kansas City to St. Louis. Units added to the refuge will be managed, when possible, to allow a return of natural river flow and function to create and restore river habitat lost over the past century.

This philosophy is already proving itself. One existing unit of the Big Muddy Refuge, called Lisbon Bottoms, has been allowed to experience the natural"flood pulse" of the river, without dikes or levees to alter flow. For the first time in a hundred years, the river created a natural side channel, the only self-restored side channel on the entire lower Missouri River. Acquisition from willing sellers of other potential restoration sites will continue.

Future Efforts

Future efforts of the Lower Missouri River Ecosystem Team are aimed at continued restoration of river habitats, with special focus on the Big Muddy Refuge, and highlighting the wide diversity of Missouri River resources through Lewis and Clark bicentennial celebrations in upcoming years.

Summary of Fiscal Year 1999 Accomplishments

Two meetings were held in Fiscal Year 1999 for team members and invited guests of the Lower Missouri Ecosystem. The first meeting, held in December 1998, in Columbia, Mo., focused on priority setting for the Lower Missouri Ecosystem and a discussion on results from the 1998 Environmental Roundtable meeting in Geneva, Wis. In July 1999, a second meeting was held in Springfield, Mo., Team members were presented with recent activities and updates by the Missouri River Natural Resources Committee, new roles and plans for the Big Muddy National Fish and Wildlife Refuge (NFWR), pallid sturgeon research, U.S. Geological Survey research and National Park Service activities on the Missouri River, and an update on the Lewis and Clark Initiative. In addition, a joint meeting with the Ozark Plateau Ecosystem included such topics of discussion as federal wildlife laws, snow goose management, and status of the Lower Missouri Ecosystem.

Specific goals identified in the Fiscal Year 1999 annual work plan for the Lower Missouri River provided overall direction for team activities. Team goals directly relate to previously described objectives as defined in the action plan for the Lower Missouri Ecosystem. Portions of the Missouri River flood plain administered by the Big Muddy NFWR were improved for backwater fisheries habitat. This important project is being accomplished with the cooperation and assistance of the Army Corps of Engineers Kansas City District and will lead to further flood plain improvement projects in future years. Mr. Tom Bell was selected as the new manager of the Big Muddy NFWR and will lead the effort for future land acquisition and flood plain restoration efforts on the refuge.

Continued development of partnerships for ecosystem improvements is another goal of the Lower Missouri team. Through the Missouri River Environmental Assessment Program a long-term monitoring plan of fish and wildlife resources and their habitats has been established. Information collected through MoREAP will be used to further understand impacts associated with operation and maintenance activities on the Missouri River. There have been no funds authorized at this time for MoREAP.

Several new legislative during the year will have profound and long-term implications on fish and wildlife resources of the Missouri River. The Lewis and Clark Bicentennial Celebration is a prominent event that has captured a great deal of attention by team members who are directly responsible for Service land management and regulatory activities on the mainstem Missouri River. Through efforts of the team a proposal was developed to fund outreach and other fish and wildlife resource activities in direct association with the Lewis and Clark event. Many of these proposals have been elevated to the Department level and the team is hopeful that funding will be forthcoming starting in Fiscal Year 2001.

In January 1999, Mark Wilson, became the new team leader for the Lower Missouri Ecosystem Team. Mark is the Field Supervisor of the Columbia Ecological Services Office and has major responsibilities for resources of the Missouri River in Region 3. Through Mark and team members of the Lower Missouri Ecosystem there will be an increasing level of interest in the resources of the Missouri River watershed.

After the 1993 floods, the Big Muddy National Fish and Widlife Refuge was established to help restore some of the natural processes and habitats of the Missour River.
- USACOE Photo

Goals for Fiscal Year 2000

The following activities have been established for team members of the Lower Missouri River Ecosystem in fiscal year 2000.

Lift the Conservation of Migratory Birds to a Higher Level

The ecosystem committee working on the Lewis and Clark Subgroup will continue to collaborate with other affected ecosystem teams and guide the Regions and others in the development and refinement of an overall outreach strategy for the Service.

Develop and implement a plan to develop a guide to the birds recorded by Lewis and Clark as a Service education and outreach tool.

Species listed in the Region 3 Resource Conservation Priorities Plan will receive special attention in planning for five wetland and five native grassland restoration projects throughout the ecosystem.

Strengthen the Ecosystem Approach to Fish and Wildlife Conservation

Initiate discussion with Federal, State and Tribal partners for at least one watershed improvement projects (e.g. Squaw Creek) within the Lower Missouri River Watershed. This area represents one of the thirteen focus areas identified by the Midwest Natural Resources Group.

Lead Efforts to Prevent the Introduction and Spread of Invasive Species

Field stations will continue to control and monitor invasive species such as zebra mussels and Asiatic clams and provide education and outreach efforts to increase public understanding of invasive species.

Pursue opportunities to collaborate with other Federal, State and Tribal partners in developing a strategy to prevent and control the introduction of non-sterile Asian carp as developed by Jim Milligan of the Columbia FRO.

Set the Course for the Future of the Refuge System

As recommended in WH 17 of the Fulfilling the Promises document, team members will continue to pursue and support the development of a nationally coordinated approach for prioritizing lands and waters to support strategic growth of the refuge system. Specifically, opportunities for expanding the Big Muddy NFWR and Marais des Cygnes NWR will be pursued in Fiscal Year 2000.

Fiscal Year 1999 Accomplishments

Alabama Farm Federation Tours DeSoto NWR

DeSoto National Wildlife Refuge

Fifty-four "Sundowners" with the Alabama Farm Federation toured the visitor center and museum and refuge. Sundowners are farm families who are employed full-time off the farm. They manage their farm enterprise during personal time, usually the evening hours. Biologist Buske discussed the refuge's sustainable agriculture program, grassland and prescribed burning program, how the Missouri river valley hydrology has changed due to channelization and its side effects, and tour members viewed a variety of wildlife. Partners include: Iowa State University Extension Service *10/17/98*

6,500 Objects From the Steamboat Bertrand Protected

DeSoto National Wildlife Refuge

Over 6,500 objects from the Steamboat Bertrand were removed from exhibit and put in temporary storage to ensure their safety while contractors worked to install a new HVAC system for the museum storage and exhibit areas. Nineteen holes were sawn through an 8-inch-thick concrete floor, and the 150-foot floor-to-ceiling viewing glass was professionally washed along with other minor repairs. To minimize the disruption for visitors, the Cargo Viewing Gallery remained open, albeit with little to see but cardboard and plastic sheeting. One week later exhibit re-installation was completed. Project coordination was completed by the museum curator with extensive help from DeSoto staff, volunteers and outside contractor. The moving of this number of objects is extraordinary and has not been done at DeSoto since 1981 when the exhibit was initially installed. *11/6/98*

Swan Lake NWR Christmas Bird Count

Swan Lake National Wildlife Refuge

On Dec. 30, 1998, ten participants completed the 24th annual Swan Lake Christmas Bird Count. All birds seen or heard within a 15 mile circle, which includes Swan Lake National Wildlife Refuge, were counted. Sixty-one species and 6,722 individual birds were counted by the four separate parties. Highlights included the rare sighting of pied-billed grebe, great blue heron, common snipe, killdeer, and lapland longspurs. An unusual species encountered requiring documentation were a flock of rusty blackbirds. The Christmas Bird Count data over time in the Swan Lake area provides insight into the long-term health of bird populations. Partners include: Grand River Chapter of the Audubon Society, Columbia Chapter of the Audubon Society. *12/30/98*

Swan Lake NWR Nominated as a Regional Western Hemisphere Shorebird Reserve Network Site

Swan Lake National Wildlife Refuge

Swan Lake National Wildlife Refuge was nominated to become part of the Western Hemisphere Shorebird Reserve Network (WHSRN)as a Regional site. WHSRN is a network of lands recognized as important sites vital for the continued survivability of migrating and breeding shorebirds. WHSRN was established to promote and support the conservation of truly hemispheric shorebirds shared by all countries from pole to pole. Swan Lake NWR may host up to 21,000 shorebirds of 33 species annually which meets the WHSRN criteria as a Regionally important site. Regional sites in WHSRN receive recognition as major critical habitats for migratory shorebirds. Membership provides benefits including site dedication assistance, project development assistance to conduct research, monitoring, land management improvements, public outreach or educational activities and participation in WHSRN networking activities among sites including twinning, personnel exchanges, training and strategic planning. Partners include: Missouri Department of Conservation, Grand River Chapter of the Audubon Society, Columbia Chapter of the Audubon Society, Sumner Community *1/7/99*

DeSoto NWR Premieres New Video

DeSoto National Wildlife Refuge

DeSoto NWR previewed a 27-minute video about the refuge, broadcast nationally in December 1999, as part of the television series "Nature Scene" with Naturalist Rudy Mancke. Rudy and co-host Jim Welch did an excellent job of interpreting the subtle aspects of natural history at the refuge. Topics includes Lewis and Clark Expedition, the Missouri River environment, and difficulty of early navigation. Rudy demonstrates a good appreciation and understanding of the Service Mission. Fieldwork was carried out in August 1998. Coordinated by ORP Bruce Weber. This is a Program of South Carolina ETV. A copy will be sent to the regional office for viewing. *2/19/99*

Missouri Hunter Fined for Killing Trumpeter Swan

St. Peters Law Enforcement

A Reynolds County, Mo., man paid a $ 750 federal fine for killing a trumpeter swan. The man reported the killing to the local conservation agent and stated that he had seen the "white goose" in a field and walked up to it and it wouldn't fly. He came back later that day and shot the swan instead of letting coyotes get it. The man went home, breasted out the "white goose" and called the local agent who then contacted the Service. It was determined by other witnesses that the swan had been seen flying earlier and that it had become semi-tame. *2/25/99*

Society of Range Management Visits DeSoto NWR

DeSoto National Wildlife Refuge

Forty-two participants from the Society of Range Management International Conference in Omaha, Neb. recently visited DeSoto NWR to learn about the Refuge's biology and land management program. The group toured the visitor center, and discussed the results of two major wildlife research projects recently completed at the refuge. One project was a seven year white-tailed deer telemetry study and the other was a non-game grassland bird study. *2/25/99*

One Dead Eagle Leads to 28 Citations

St. Peters Law Enforcement

After a dead bald eagle was reported to Missouri Department of Conservation Agent Clay Creech, Creech got the perpetrator to confess to the killing of the eagle, and to two state violations of illegally hunting white-tailed deer. Agent Creech contacted Service Special Agent Dan Burleson in order to prosecute the eagle killing in Federal Court. On February 9, 1999, Special Agent Burleson re-interviewed the eagle shooter and his partner. After a seven hour interview the two defendants gave detailed information concerning numerous poaching incidents in Missouri. A result of the interviews was the filing of 25 additional state charges including illegal take of deer and turkey, falsifying tags, failure to check kills, loaning of tags and several other charges. These charges involved approximately 15 people ranging in age from 16 to 23. The officers were able to recover deer meat, antlers, turkey beards and weapons. Charges are pending in federal court on the eagle killing. Many of the animals killed, including the eagle, were killed solely as target practice and the carcasses were left to rot. *2/9/99*

Steamboat Bertrand Curator Assists in NPS Training

DeSoto National Wildlife Refuge

Bertrand Museum Curator, Sarah Tuttle, was asked to give an in-depth tour of the museum to participants in the National Park Service's "Basics of Archeological Collections Management" workshop. Twenty-four students and instructors spent several hours touring the exhibits, conservation laboratory and museum offices. Many of the management theories and methods covered in earlier course sessions were seen, in practice, at the Bertrand. Issues relating to archeological collections and their impact on collection managers and museum curators were highlighted. Later, the curator participated in a panel discussion intended to summarize the workshop's goals. Partners include: Midwest Archeological Center, National Park Service, Lincoln, Neb. *3/5/99*

Spring Waterfowl Migration
Squaw Creek National Wildlife Refuge
The peak concentration of snow geese this spring was more than 220,000 birds recorded on February 25. This was the highest since February 1972 when 220,800 were counted. In addition, Canada goose numbers were the highest in five years. As for ducks, the peak numbers of birds was nearly one month ahead of normal with 24,500 counted on February 16. *3/1/99*

Squaw Creek NWR Bald Eagles
Squaw Creek National Wildlife Refuge
Two bald eagles have taken up residence in Mallard Marsh, constructed a nest during the late winter and early spring and now appear to be serious nesters. The new nest is approximately 100 yards east of a nest built in 1997 (the first ever on Squaw Creek which successfully fledged three young during 1997). *3/1/99*

Squaw Creek Comprehensive Conservation Plan
Squaw Creek National Wildlife Refuge
A shareholders meeting was held at the Drury Inn, St. Joseph, Mo, March 12, 1999. Fifteen of 30 people that were invited attended and provided some input into the process. Two public meetings will be scheduled this summer. Three University of Missouri students, under contract with the Service, spent march 24 and 25 with a Global Positioning System (GPS) unit plotting physical facilities for a refuge map to be included with the Comprehensive Conservation Plan. *3/1/99*

New Squaw Creek Storage Building
Squaw Creek National Wildlife Refuge
A new 40 x 80 -foot storage building was completed in early January. A concrete floor will be poured when weather conditions permit and water troughs and down spouts installed. *3/1/99*

Diversity Outreach
Squaw Creek National Wildlife Refuge
Resumes from five potential candidates from Missouri Western State College were solicited and assistance was given to them in getting on the Biological Tech/Aid registers for possible summer jobs with the Service. Contact was also made with the Cooperative Wildlife Research Unit, Columbia, Mo., and Haskell Indian Nations University, Lawrence, Kan. *3/1/99*

DeSoto Participates in Job Shadow
DeSoto National Wildlife Refuge
DeSoto NWR hosted a high school junior from Dodge, Neb., for a day of on-the-job shadow experience. Bertrand Museum Curator, Sarah Tuttle, introduced the general goals of the Service and discussed overall refuge programs and operations with the student. Refuge Operations Specialist, Mindy Sheets, explained the biological program and other aspects of wildlife management. The student toured the visitor center, walked a nature trail and observed a prescribed burn underway. *3/24/99*

Region's Biologists Focus on Ecosystem Approach at St. Louis Training Forum
Region 3
Approximately 220 biologists attended "Biology and the Ecosystem Approach: Putting the Pieces Together,."a training forum for all biologists in Region 3. The four-day forum was held in February in St. Louis, Mo. Forum topics included trust resource overviews, Program overviews, habitat conservation, research, monitoring and data management, population management, adaptive resource management, and challenges facing biologists. Many biologists gave presentations, all focused on the Ecosystem Approach. Partners include: Missouri Department. of Conservation, Colorado State University, Iowa State University. *2/12/99*

Marquardt Pond Renovated
DeSoto National Wildlife Refuge
A one-acre pond on DeSoto Refuge located in Harrison County, Iowa is under renovation. The renovation of Marquardt Pond will provide environmental education and related activities for church groups, inner city youth, 4-H clubs, Scouts and schools. Partners include: DeSoto NWR, State Layman's Association of Omaha, Nebraska and American Family Insurance *4/30/99*

DeSoto Refuge Float Wins First Place in Local Parade
DeSoto National Wildlife Refuge
The first ever DeSoto NWR float debuted in the Harrison County parade, winning first place in its division. The design and construction of the float was a cooperative effort by many of DeSoto's permanent and summer staff - all during off hours. The 28-foot featured a row boat "floating" on DeSoto Lake with duck decoys and paper fish. The float's land mass was constructed of native vegetation and more decoys. Three volunteers rode atop the float; two were in the boat "fishing," the third was "birding" on shore. The volunteers tossed 15 pounds of candy to kids along the one mile parade route, free-day passes were popular with the adults. *7/24/99*

Elementary Students Get Environmental Education During DeSoto's Prairie Appreciation Week
Desoto National Wildlife Refuge
DeSoto NWR hosted its annual Prairie Appreciaton Week Sept. 11-19, 1999. More than 3,000 people attended video presentations, classroom activities, prairie walks and exhibits. Five classes of fourth graders (about 140 students) participated in intensive environmental education lasting three hours. *9/11/99*

New Fishery Biologists Increase Reach of Carterville Fishery Resources Office
Carterville Fishery Resources Office
The Carterville Fishery Resources Office added two new fishery biologists in Fiscal year 1999, strengthening its biological staff. Chad Stinson joined the staff March 21, for a one year term. Greg Conover joined June 6, 1999, as a permanent employee. The addition of two fishery biologists to the improves the staff's capability to be actively involved in the management of the regions aquatic resources. Chad Stinson is working on a biological assessment of the Kankakee River drainage, a pallid sturgeon survey on the lower Ohio River, and SIKES Act fishery management activities. Greg Conover manages the MICRA National Paddlefish Database and Coded-Wire Tag Processing Center, conducts inspections for the Service's Triploid Grasscarp Inspection/Certification Program, and conducts fishery management activities on waters owned by the Department of Defense. *6/6/99*

NAWCA Grants Bring $3.3 million to Region 3 Partners
Refuges&Wildlife
On September 15, 1999, the Migratory Bird Conservation Commission approved four North American Wetlands Conservation Act (NAWCA) grants to Region 3 partners, for a total of $3,339,980. The Cache River Wetlands III project will allow the Illinois Chapter of The Nature Conservancy to acquire a key parcel in the Cache River basin of southern Illinois, critical for a future re-connection of the Upper and Lower Cache Rivers. The Missouri Four Rivers Wetland III project will allow the Missouri Department of Conservation to expand protected acreage in the floodplains of the Marmaton, Little Osage, Marais des Cygnes and Osage Rivers, which will be restored to bottomland forest and a diversity of other wetland habitats. The Northcentral Iowa Wetland Project will allow the Iowa Department of Natural Resources and other partners to maximize the effectiveness of the Emergency Wetland Reserve Program in a five-county area. Lastly, the Michigan Upper Peninsula Coastal Wetland project will benefit a multitude of partners by protecting and restoring coastal wetlands and associated uplands in the Lake Superior and St. Mary's River watersheds of Michigan. Partners include: Iowa Department of Natural Resources, Illinois Chapter of The Nature Conservancy, Ducks Unlimited, Missouri Department of Conservation, Natural Resource Conservation Service, Michigan Department of Natural Resources, Anheuser-Busch, Inc., Great Lakes Indian Fish and Wildlife Commission, U.S. Forest Service, Worth County Conservation Board, Pheasants Forever, Keweenaw Bay Indian Community, Bay Mills Indian Community, Village of L'Anse.. *9/15/99*

Carterville FRO Manages National Paddlefish Database and Coded-Wire Tag Processing Center

Carterville Fishery Resources Office

The Mississippi Interstate Cooperative Research Association (MICRA) national paddlefish database and an associated coded-wire tag processing center are managed by the Carterville Fishery Resources Office (FRO). During Fiscal Year 1999, the Center processed 5,370 coded-wire reference tags from wild captured fish and 104 reference tags for 52 stockings of 85,492 hatchery reared fish. Coded-wire tags recovered from 281 recaptured paddlefish were processed and linked to release data in the database. At the end of the fiscal year, the database contains individual records for 1.1 million stocked paddlefish, more than 9,000 wild tagged paddlefish and nearly 1,000 tag recoveries. Long and short distance migrations between state management jurisdictions and between important paddlefish habitats have been documented. Individual data summaries were constructed and distributed to participating states. MICRA is comprised of 28 member state natural resource agencies. Twenty-three states contributed to the MICRA paddlefish database. The national study is designed to assess the population status of paddlefish, formulate estimates of harvest and exploitation, and to describe their movement and migration patterns throughout the Mississippi Basin. The project will continue during Fiscal Year 2000. Partners include: Blind Pony NFH; Carbon Hill NFH; Centerton NFH; Garrison Dam NFH; Gavins Point NFH; Mammoth Spring NFH; Natchitoches NFH; Neosho NFH; Private John Allen NFH; Tishmingo NFH; Uvalde NFH; Alabama, Arkansas and North Dakota Divisions of Game & Fish; Minnesota, Iowa, Illinois, Indiana, Ohio, Wisconsin and West Virginia Departments of Natural Resources; Kansas Department of Wildlife & Parks; Kentucky Department of Fish & Wildlife, Louisianna Department of Wildlife & Fisheries; Mississippi and Montana Departments of Wildlife, Fish, & Parks; Missouri Department of Conservation; Nebraska Game & Parks Commission; New York Department of Environmental Conservation; Oklahoma Department of Wildlife Conservation; Pennsylvania Fish & Boat Commission; South Dakota Department of Game, Fish, & Parks; Tennessee Wildlife Resources Agency and Texas Parks & Wildlife Department.

9/30/99